

SELECTIVE ERROR CORRECTION FOR AD HOC NETWORKS HAVING MULTIPLE COMMUNICATION MODES

ABSTRACT OF THE DISCLOSURE

Error control is provided in an ad hoc network having an asynchronous communication mode and a synchronous communication mode. A packet including a header and a payload is received. The header includes a header error check (HEC) computed based on the header. An error indicator is calculated based on the received header. The received payload is forwarded if the calculated error indicator indicates an error free header. The header, only in the synchronous communication mode, is modified based on an error correction table when the calculated error indicator corresponds to a value in the error correction table and the received payload is forwarded. A received packet error is detected in the synchronous communication mode when the calculated error indicator indicates an error in the header and the calculated error indicator does not correspond to a value in the error correction table. A received packet error is detected in the asynchronous communication mode when the calculated error indicates an error in the header.